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10/590,698	08/25/2006	Darren Kidney	P30345	4508

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1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER
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BELLINGER, JASON R

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3617

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/590,698  
Filing Date: August 25, 2006  
Appellant(s): KIDNEY, DARREN

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Mr. Robert W. Mueller  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12 February 2010 appealing from the Office action mailed 2 April 2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

13-24 and 26-28

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner: The rejection of claims 13-37 under 35 USC 112, 2nd paragraph.

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

GB 787,784	Dunlop	12-1957
DE 1,021,738	Servaes	12-1957
US 7,104,300	Veux et al	9-2006
US 1,621,021	Medynski	3-1927

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 13-17, 22-23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 787,784 (hereafter Dunlop) in view of DE 1,021,738 (hereafter Servaes). As best understood, the Dunlop reference shows a sealing ring for a wheel having all of the structure as set forth in the above claims, except as follows:

The Dunlop reference does not specify the dimensions of the sealing ring 5 with respect to the tire beads 3. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the sealing ring of the reference with dimensions suitable to properly function when inserted into a wheel assembly, i.e. sealing the tire against the rim.

The Dunlop reference does not specify that the deformable sealing elements (adjacent grooves 7) project from an inner surface of the flexible limbs. Servaes teaches the use of sealing elements that project from a surface of a sealing ring 4. Therefore, from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the deformable sealing elements of the Dunlop reference as a projection from the inner surface of the flexible limbs as an alternative configuration, in order to increase the sealing effect of the sealing ring by allowing more surface area of the sealing elements to contact the tire beads when installed.

While the Dunlop reference as modified by Servaes does not show the grooves between the sealing elements being rounded or the free ends of the sealing elements

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being rounded, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the grooves and free ends in any shape, dependent upon the manufacturing process used, and the aesthetic appearance desired.

Claims 18-19, 21, 24, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 787,784 (hereafter Dunlop) in view of DE 1,021,738 (hereafter Servaes) as applied to claims 13-17, 22-23, and 26 above, and further in view of Veux et al. The Dunlop reference as modified by Servaes does not show the sealing ring 5 including a reinforcing member formed on the central annular body. In Figure 7, Veux et al teaches the use of a sealing ring having a reinforcing member 70 formed on a central body portion. This reinforcing member 70 is a radial elevation or rib on the radially outer side of the body. Therefore, from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the sealing ring 5 of the Dunlop reference as modified by Servaes with a rib, for the purpose of providing reinforcement to the sealing ring, thus preventing.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 787,784 (hereafter Dunlop) in view of DE 1,021,738 (hereafter Servaes) and Veux et al as applied to claims 18-19, 21, 24, 27-28 above, and further in view of Medynski. The Dunlop reference as modified by Servaes and Veux et al does not show a hollow space provided in the reinforcing member. Medynski teaches the use of a sealing ring 10 having a reinforcing member 15-16 with a hollow space therein. Therefore, from this

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teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the rib of the sealing ring of the Dunlop reference as modified by Servaes and Veux et al with a hollow space, for the purpose of reducing the weight of the ring without sacrificing strength or resiliency.

Claims 25 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 30-37 are allowable over the prior art.

#### **(10) Response to Argument**

The Appellant argues that it is unclear whether the new matter objection in the specification was withdrawn. However, as set forth in section 13 of the Advisory Action mailed 28 July 2009, the objections to the specification (and drawings) were overcome in view of further consideration of the Appellant's arguments.

After further consideration of the Appellant's arguments regarding the rejection of claims 13-37 under 35 USC 112, 2<sup>nd</sup> paragraph, the Examiner agrees that one skilled in the art could understand the claims in light of the disclosure and drawings. Therefore, the aforementioned rejection has been removed.

The Applicant argues Dunlop (GB 787,784) does not show the sealing ring in an un-installed state, and thus it is unclear whether Dunlop shows deformable sealing elements. However, Dunlop shows grooves 8 formed in the arms 7. The arms are made

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of rubber, which is a deformable material. Therefore, it is obvious that the rubber material between the grooves 8 is capable of deforming to seal against the tire bead. Also, it should be noted that Servaes (DE 1,021,738) was used to teach the structure of the sealing elements (i.e. projecting from a surface). Therefore, one of ordinary skill in the art would find forming the rubber material between the grooves 8 of Dunlop as projecting deformable elements would predictably increase the sealing surface area of the seal element against the tire. The Appellant is arguing the references separately, which is improper (see below). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the Appellant argues that deformable members 4 of Servaes (DE 1,021,738) extend axially, and thus apply an "essentially axial" force to the beads 2; while the grooves 8 of



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Dunlop (GB 787,784) apply an "essentially radially inwardly directed" force to the beads

3. The fact that the sealing elements of Servaes extend axially is irrelevant, given the fact that Dunlop shows the grooves 8 and sealing elements therebetween being located on the radially inwardly pointing surface. The references were not literally combined.

Namely, Servaes was only used to teach the use of protrusions extending from a surface of a sealing ring. Dunlop shows the remainder of the claimed structure of the sealing ring. Furthermore, the rejection sets forth how one of ordinary skill in the art would find the protrusions of Servaes equivalent substitute structure to the grooves of Dunlop. It should further be noted that the Appellant has not provided any evidence that the combination is incapable of functioning in the same manner as set forth in the claims.

Regarding claim 20, the Appellant argues that the references do not show the hollow space arranged "in a radial elevation". However, Medynski teaches a hollow space located in a reinforcement (15-16) element, which meets the limitations of the claims. Namely, the phrase "in a radial elevation" has been interpreted to mean "within the radial thickness" of the sealing ring. Furthermore, the reinforcement (15-16) qualifies as a "radial elevation", since this element extends in the radial direction. It should be noted that the claims lack any structure defining the limitation "radial elevation" that would preclude the structure taught by Medynski.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Jason R Bellinger/

Primary Examiner, Art Unit 3617

Conferees:

Russell Stormer /RDS/

Marc Jimenez /MJ/